

**Notice of Allowability**

Application No.

10/748,742

Examiner

Joe H. Cheng

Applicant(s)

SCHLEPPENBACH ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 8/22/05.
2. ☒ The allowed claim(s) is/are 44-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

None of the prior art of record shows the combination of the structural method steps of the claimed method for heat treating a spring by providing a coil spring with a first outer diameter and a first length fabricated from a shape memory material, providing a member defining a chamber with an inner diameter and a length, the chamber length being greater than the length of the spring and the chamber inner diameter being greater than the outer diameter of the spring, placing the spring in the chamber, heating the chamber and spring to more than about 400 degrees C. and less than about 600 degrees C. for a period of more than about two minutes, and permitting the spring outer diameter to grow to the inner diameter of the chamber and permitting the spring length to grow to the length of the chamber.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hrusovsky (U.S. Pat. No. 3,661,655) - note Figs. 1-12;

Frei (U.S. Pat. No. 4,025,061) - note Figs. 1-14;

Hijikata et al (U.S. Pat. No. 4,222,799) - note Fig. 1;

Sims (U.S. Pat. No. 4,275,370) - note Figs. 1 and 2;

Hosoda et al (U.S. Pat. No. 4,586,335) - note Figs. 1-7;

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Honma (U.S. Pat. No. 4,806,815) - note Figs. 1-10;

Tamamura et al (U.S. Pat. No. 4,860,040) - note Figs. 1-14(c);

Casciotti et al (U.S. Pat. No. 5,092,781) - note Figs. 1-7;

Yamamoto et al (U.S. Pat. No. 5,152,851) - note Figs. 1(A)-3(B);

Koyama et al (U.S. Pat. No. 5,225,008) - note Figs. 1-7;

Thoma (U.S. Pat. No. 5,226,979) - note Figs. 1-5;

Sugita et al (U.S. Pat. No. 5,302,216) - note from column 3, line 12 to column 5, Table 3;

Asseiro et al (U.S. Pat. No. 5,310,521) - note Figs. 1-7;

Heitmann et al (U.S. Pat. No. 5,368,656) - note from column 3, line 1 to column 6, line 41;

Choi et al (U.S. Pat. No. 5,575,973) - note Figs. 1a-5;

Izawa et al (U.S. Pat. No. 5,665,179) - note Figs. 1-9;

Cofrade et al (U.S. Pat. No. 6,132,533) - note Figs. 1-6;

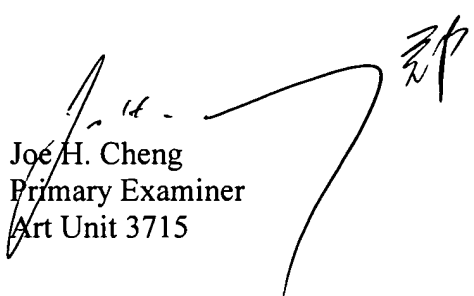
Keihle et al (U.S. Pat. No. 6,235,131 B1) - note Figs. 1 and 2.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe H. Cheng whose telephone number is (571)272-4433. The examiner can normally be reached on Tue. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571)272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joe H. Cheng  
Primary Examiner  
Art Unit 3715

Joe H. Cheng  
October 24, 2005